

OREGON ACCOUNTING MANUAL		Number 15.60.40.PR
Oregon Department of Administrative Services State Controller's Division		Effective Date July 1, 2001
Chapter	Accounting and Financial Reporting	.1 OF .5
Part	Capital Assets	
Section	Computer Software	Approval Signature on file at SCD

Authority [ORS 293.590](#)
SOP 98-1

Determining When to Capitalize or Expense

- .101 The decision to capitalize or expense costs of obtaining or developing computer software should be based upon the stage of computer software development as well as the nature of the costs incurred.

Stages of Computer Software Development

- .102 The following table illustrates the various stages and related processes of computer software development:

Preliminary Project Stage	Application Development Stage	Post-Implementation/ Operation Stage
Conceptual formulation of alternatives	Design of chosen path, including software configuration and software interfaces	Training
Evaluation of alternatives	Coding	Application maintenance
Determination of existence of needed technology	Installation to hardware	
Final selection of alternatives	Testing, including parallel processing phase	

- .103 Preliminary Project Stage. When a computer software project is in the preliminary project stage, agencies will likely:
- Make strategic decisions to allocate resources between alternative projects at a given point in time. For example, deciding if programmers should develop a new accounts receivable subsidiary system or direct their efforts toward correcting existing problems in the current accounts receivable system.
 - Determine the performance requirements (what the software needs to do) and system requirements for the proposed computer software project.

- c. Invite vendors to perform demonstrations of how their software will fulfill the agency's needs.
 - d. Explore alternative means of achieving specific performance requirements. For example, whether the agency should develop or buy the software, or if the software should run on a mainframe or a client server.
 - e. Determine if technology needed to achieve performance requirements exists.
 - f. Select a vendor, if an agency chooses to purchase software.
 - g. Select a consultant to assist in software development or installation.
- .104 Internal and external costs incurred during the preliminary project stage should be expensed as they are incurred. The development of internal-use computer software may not follow the order shown above. For example, coding and testing are often performed simultaneously. Regardless of the order of tasks, the decision to capitalize or expense costs should be applied based on the nature of the costs incurred, not the timing of their incurrence for costs incurred after the completion of the preliminary project stage. The capitalization of costs should begin once the preliminary project stage is complete.
- .105 Application Development Stage. Internal and external costs incurred to develop internal-use computer software during the application development stage should be capitalized. Costs to develop or obtain software that allows for access or conversion of old data by new systems should also be capitalized. Training costs are not internal use software development costs and, if incurred during this stage, should be expensed as incurred.
- .106 The process of data conversion from old to new systems may include purging or cleansing of existing data, reconciliation or balancing of the old data to the data in the new system, creation of new or additional data, and conversion of old data to the new system. Data conversion often occurs during the application development stage. Data conversion costs, except as noted in .105 above, should be expensed as incurred.
- .107 The capitalization of costs should cease once final acceptance testing is complete.
- .108 Post-Implementation/Operation Stage. Internal and external training and maintenance costs should be expensed as incurred.

Capitalizable Costs

- .109 Costs of computer software developed or obtained for internal use that should be capitalized include only the following:
- a. External direct costs of materials and services incurred in developing or obtaining internal-use computer software. Examples of these costs include, but are not limited to, fees paid to third parties for services provided to develop the software during application development stage, costs incurred to obtain computer software from third parties, and travel expenses incurred by employees in their duties directly associated with developing software.
 - b. Payroll and OPE costs for employees who are directly associated with and who directly spend time on the internal use computer software project. Examples of employee activities include, but are not limited to, coding and testing during the application development stage.
 - c. Interest costs incurred by proprietary funds due to borrowing.
- .110 General and administrative costs and overhead costs should not be capitalized as costs of internal-use software. Also, interest costs incurred by an agency's governmental funds due to borrowing should not be capitalized.

Upgrades and Enhancements

- .111 Upgrades and enhancements are defined as modifications to existing internal use software that result in additional functionality; that is, modifications to enable the software to perform tasks that it was previously incapable of performing. Upgrades and enhancements normally require new software specifications and may also require a change to all or part of the existing software specifications. In order for costs of specific upgrades and enhancements to internal use computer software to be capitalized, it must be probable that those expenditures will result in additional functionality. Costs incurred solely to repair a design flaw or to perform minor upgrades that may extend the useful life of the software without adding to its capability should be expensed.
- .112 New software development activities should cause an analysis of the remaining useful life of the software that is to be replaced. When an agency replaces existing software with new software, unamortized costs of the old software should be expensed when the new software is ready for its intended use.

Bundled Products and Services

- .113 Agencies may purchase software as part of a package of products and services (e.g., training, maintenance, data conversion, reengineering costs, site licenses, and rights to future upgrades and enhancements). Agencies should allocate the cost of the package among all individual elements. The allocation should be based on objective evidence of fair value of the elements in the contract, not necessarily separate prices stated within the contract for each element. Costs that are not susceptible to allocation between maintenance and relatively minor enhancements should be expensed.

Impairment

- .114 Impairment should be recognized and measured when one of the following occurs and is related to post-implementation/operational software and/or modules thereof:
 - a. The software is no longer expected to provide substantial service potential and will be removed from service.
 - b. A significant change occurs in the extent or manner in which the software is used or is expected to be used.
 - c. A significant change is made or will be made to the software program.
 - d. Costs of developing or modifying internal use computer software significantly exceed the amount originally expected to develop or modify the software.
- .115 If the impaired software is to be removed from use, the loss due to impairment should be measured as the difference between the book value (original cost less accumulated amortization) and the net realizable value (the estimated amount that can be recovered from selling, or any other method of disposing of an item, less the estimated cost of disposal), if any.

Accounting for Software

- .116 Capitalized software should be recorded in general ledger account 0817, Data Processing Software, separately from data processing hardware. Capitalized software purchased or developed with resources from **proprietary funds** or **fiduciary funds** should be accounted for within the accounts of that fund. Capitalized software purchased or developed with resources from **governmental funds** are considered general capital assets and should be accounted for in

the **government-wide reporting fund**. General capital assets are those associated with governmental activities and have been purchased by governmental funds.

Amortization

- .117 The costs of computer software developed or obtained for internal use should be amortized on a straight-line basis using the guidance in **OAM 15 60 20**, Depreciation and Amortization of capital assets, which provides guidelines on estimated useful lives for computer software. Agencies should adopt and document a consistent policy for determining partial year amortization in the year when the software is put into use as a capitalized intangible asset.
- .118 For each module or component of a software project, amortization should begin when the computer software is ready for its intended use, regardless of whether the software will be placed in service in planned stages that may extend beyond a fiscal year. Computer software is ready for its intended use after all substantial testing is completed. If the functionality of a module is entirely dependent on the completion of other modules, amortization of that module should begin when both that module and the other modules upon which it is functionally dependent are ready for their intended use.

Financial Statement Reporting

- .119 In proprietary funds and in the government-wide reporting fund, capitalized software is reported as part of Buildings, Property and Equipment within the capital assets category on the proprietary fund and government-wide statement of net assets. Accumulated amortization for proprietary fund and general capital assets is reported as a contra account to capital assets on the proprietary fund and government-wide statement of net assets.
- .120 Amortization expense in proprietary funds is reported in the statement of revenues, expenses and changes in fund net assets as a separate line item within operating expenses. Amortization expense in the government-wide reporting fund is reported in the statement of activities in the applicable function for governmental or business-type activities.

Sample Transactions

- .121 An agency develops an internal-use computer software program for their accounts receivable system. Total internal and external costs incurred through final acceptance testing were \$6,000 and were paid from the agency's **special revenue fund**. The useful life of the software is three years. The agency decides to take a full year of amortization in the year it is placed in service using the straight-line method. After year two, the software is determined to be permanently impaired and of no future use to the agency. Its net realizable value is zero. The following entries would be recorded:

Special Revenue Fund

Generic Entry Expenditure comptroller object 5300 Data Processing Software

DR Expenditure C/O 5300	6,000	
CR Cash		6,000

Government-wide Reporting Fund

TC 545 using comptroller object 5300 Data Processing Software

DR 0817 Data Processing Software	6,000	
DR 3074 Change in Capital Assets	6,000	
CR 3018 Invested in Capital Assets		6,000
CR 3600 GAAP Expenditure Offset-Capital Outlay		6,000

Yearly Amortization – Year One and Year Two (illustrated entry done *each* year)

Special Revenue Fund

No Entry

Government-wide Reporting Fund

TC 542 using comptroller object 7478 Amortization Expense – Software

DR 3018 Invested In Capital Assets	2,000	
DR 3600 GAAP Expenditure Offset-Amortization Expense	2,000	
CR 3074 Change in Capital Assets		2,000
CR 0868 Accumulated Amortization–DP Software		2,000

Year Three – Write off remaining book value and recognize loss

Government-wide Reporting Fund

TC 532 to remove accumulated amortization

DR 0868 Accumulated Amortization-Data Processing Software	4,000	
CR 0817 Data Processing Software		4,000

TC 537 using comptroller object 2330 Gain/Loss on Disposal to remove unexpired cost

DR 3018 Invested in Capital Assets	2,000	
DR 3200 GAAP Revenue Offset-Gain/Loss on Disposal	2,000	
CR 0817 Data Processing Software		2,000
CR 3074 Change in Capital Assets		2,000